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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/492,668	01/27/00	GARVER	R 242/300

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EXAMINER	
WALSH, D	
ART UNIT	**PAPER NUMBER**
2876	

DATE MAILED: 08/15/01

Please find below and/or attached an Office communication concerning this application or pr c eding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/492,668	GARVER, ROY A.	
	Examiner	Art Unit	
	Daniel I Walsh	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-39 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 January 2000 is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED OFFICE ACTION

1. Receipt is acknowledged of the Information Disclosure Statement received on 7 May 2001.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 53A and 54A. Correction is required.

Claim Objections

3. Claims 1, 5, 13, 16, 18, 25, 26, 34, and 37 are objected to because of the following informalities:

Re claim 1, line 18: Replace "the step" with -- a step --.

Re claim 5, line 2: Replace "the group" with -- a group --.

Re claim 13, line 2: Replace "the step" with -- a step --.

Re claim 16, line 12: Replace "the price" with -- a price --.

Re claim 18, line 3: Replace "the group" with -- a group --.

Re claim 25, line 16: Replace "the customer" with -- a customer --.

Re claim 26, line 4: Replace "the group" with -- a group --.

Re claim 34, line 3: Replace "the group" with -- a group --.

Re claim 37, line 3: Replace "the price" with -- a price --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7, 8-12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruppert et al. (US 5,640,002).

Rupert et al teaches establishing a communication link with a data storage unit in which a plurality of data records are stored, each of the records corresponding to a respective one of a plurality of identifiers that was read by a portable data reading unit before the communication link was established and inputting the plurality of data records from the data storage unit via the communication link through "In accordance with the teachings of the invention, there is disclosed a personal bar code scanning device which comprises a microprocessor and associated control software coupled to a bar code reader, a display, and a bi-directional communication port/device, ROM or EPROM memory and random access memory" (col 1, line 58-63) and "Other routines retrieve the current price list of the store to be shopped. This may be done by modem in some embodiments, or by physical connection to the store computer in other embodiments through the communication port. In other embodiments, the current price list can be downloaded by way of an infrared transceiver local area network interface when the user enters the store and indicates that the price list is to be downloaded" (col 2, line 16-19). Ruppert et al. Teaches determining the price total for a plurality of items corresponding to the plurality of identifiers based on the data records inputted through "Another routine alters the

display of the item scanned to indicate that it has been scanned and then looks up the item on the current price list and adds its price to a running total which is displayed to the user" (col 2, lines 29-32).

Ruppert et al. Teaches accepting payment for the items by using a customer operated payment system via FIGs. 29A, 29B 15.

Re claim 2, Ruppert et al. teaches that the data storage unit is contained in the portable data-reading unit through SYSTEM MEMORY EPROM/RAM 324 of FIG. 16.

Re claim 3 and 6, Ruppert et al. teaches the data storage unit receives data via an RF interface through and comprises an RF tag reader "A portable barcode and RF ID tag reader that gathers information about items to be purchased etc by reading barcodes or RF ID tags" (abstract). Here it is understood that an RF interface exists in order to have a device capable of reading RF tags.

Re claim 5, Ruppert et al. teaches the limitations of the claim through "In alternative embodiments, the bar code scanner can be a laser diode based scanner, LED contact scanner, optical or magnetic scanner or character reader" (col 6, lines 61-64).

Re claim 7, the limitations of the automated payment-accepting subsystem are taught through FIG. 15.

Re claims 8-9, 11 and 12, the teachings of Ruppert et al. have been discussed above, specifically that the barcodes symbols are scanned with the portable reading unit as set forth in the claims. Ruppert et al. also teaches a self checkout station through "Tag readers and then the items are bagged by the customer at the checkout stand" (abstract) and that the reading unit is linked to the checkout station through "If the user is done, he or she presses the button 105 on

the front panel when he or she has reached the checkout clerk and connected the Personal Scanner.TM.device to the store's register. This causes the processes symbolized by blocks 106 and 108 to be performed to transfer the scanned items to the store registers as will be described further below" (col 10, lines 59-65).

Re claim 10, Ruppert et al. teaches the data about the desired items is transferred to checkout from a base station that communicates with the portable reading unit through FIGs. 29A-29C which show a flow chart of the process of shopping using a PID to self scan items to be purchased and communicate with the store host computer to pay for the goods at checkout time by either smart card, credit card or cash.

Re claim 14, Ruppert et al. teaches that the obtaining step and linking step are performed in different locations via "The customer enters a store 602 either with his or her own PID 604 or checks out a PID from a vending machine or recharging cradle which releases a PID when the customer places a valid credit card into a credit card reader on the machine" (col 38, lines 59-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppert et al.

Re Claim 4, Ruppert et al. teaches outputting signals to a POS controller in a format that mimics conventional POS scanning terminals through "After all desired items have been scanned, the stored descriptive information and price information are downloaded from the personal bar code scanner to the store computer either through a hardwired connection between the communication port of the personal scanner and a communication port of the store computer or through an infrared transceiver local area network interface" (col 2, lines 41-47) and inputting price information has been discussed above in reference to credit card payments. It is understood that the conventional bar code scanning is interpreted as the same as conventional POS scanning as cited in the claim.

Ruppert et al. fails to specifically teach or fairly suggest that the signals are outputted to a POS controller.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use a controller.

One would have been motivated to use a controller to have an independent, reliable, and electronic means of ensuring the accuracy of the signals and their processing, and the use of controllers is well known within the IC art.

Re claim 13: Ruppert et al. teaches linking the portable reading device through "At checkout time, the product identification data stored in the PID memory is downloaded to the host computer 509 of the store as symbolized by RF transmission 508. The data regarding the products the customer wants to purchase can also be downloaded by a hardware link to a local area network coupled to the store host computer. This can be done either via a LAN interface to the store computer integrated on a PCMCIA card which is slipped into the PCMCIA slot of the PID at checkout time, or the PID can be slipped into a base unit at the checkout stand like base unit 312 which downloads the stored information via the infrared link between the PID and the base unit. The information downloaded into the base unit is then downloaded to the store computer via a LAN interface to the store computer's local area network built into the base unit or via an RF interface to the LAN or the host computer itself" (col 32, lines 21-36).

Ruppert et al. fails to specifically teach or fairly suggest the use of a cradle to link that data.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use a cradle to link the data. It would have been a matter of design choice since applicant has not disclosed that a cradle solves any stated problem or is for any particular purpose ant it appears that the invention would perform equally well with the linking methods set forth in the reference such as a LAN interface or a PCMCIA card.

Re claim 15: though the teachings of Ruppert et al. have been discussed above with respect to claim 14, Ruppert et al. fails to specifically teach or fairly suggest that the first and second locations are separated by at least twenty feet.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to separate the locations by at least twenty feet.

It would have been obvious to an artisan of ordinary skill in the art, at the time the invention was made, to separate the locations by twenty feet, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Furthermore, one would have been motivated to separate the locations in order to reduce the amount of customer traffic, to conform to store sizes/layouts, and to add to the efficiency and ease of navigating through the store/warehouse.

4. Claims 16-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppert et al. as modified by Dumont (US 5, 540, 301).

The teachings of Ruppert et al. have been discussed above.

Re claims 16 and 21, Ruppert et al. fails to specifically teach or fairly suggest a self-checkout station with controllers and payment acceptors.

Dumont teaches a self checkout station what a data input port that inputs data from a storage unit, determining a price for the data input into the port, a customer automated payment acceptor that generates a signal based on the payment, and that a signal is generated when the payment is sufficient through "An automatic bulk self-checkout apparatus includes several purchase items, each item being marked with a bar code containing item price information, a purchase item holder for retaining purchase items as they are gathered and transported to a

checkout area of a store, a bar code scanner assembly for reading the bar codes while the items are inside the item holder and for sending information contained in the bar codes as signals, a bar code processing assembly for receiving and converting the signals into numerical price data and for totaling prices of the items within the item holder" (abstract) and through "These doors remain closed until money, a credit card, coupons, or other payment means are inserted into a payment receiving assembly attached adjacent the entry port, and the totaled price is thereby paid. The payment receiving assembly sends a signal to the computer which in turn causes the entry and exit doors to open" (col 1, lines 37-43)

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont in order to have a reliable self checkout system that accepts payment.

Though Dumont fails to teach the use of controllers in the checkout station, at the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use controllers.

One would have been motivated to use controllers to accurately and efficiently control the payment and determining means.

Re claim 17, though Dumont fails to specifically teach a portable data reading unit, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention to modify the checkout station of Dumont to include a portable scanner in order to make the checkout process more secure, reliable, and efficient by having the individual scan the items.

Re claim 18, the limitations have been taught above, by Ruppert et al. who teaches the use of various types of scanning devices in his portable unit. At the time the invention was

made, it would have been obvious to use such reading units in self-checkout stations as opposed to only in the portable scanning units taught by Ruppert et al. One would have been motivated to do this in order to have a more versatile system with the ability to handle various forms of indicia/encoded data.

Re claims 19-20, Ruppert et al. teaches the above limitations introduced in these claims in his portable unit. At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to incorporate a RF tag reader that communicates with the register (base station) into the self-checkout station. One would have been motivated to do this to create a more secure system as that taught by Ruppert et al., since the items to be purchased would be scanned at a central station.

Re claim 22, Dumont teaches that indication is generated upon payment through "Doors 54 and 56 remain closed until cash, a credit card, coupons or other payment means are inserted into a payment receiving assembly 60, which is mounted above entry port 14 and electrically connected to computer 28, and the totaled price is thereby paid" (col 5, lines 32-37).

Re claim 23, the limitations have been taught above, with respect to claim 13. Here it is understood that data is communicated through an input port with a storage unit.

Re claim 24, Dumont teaches the payment acceptor means through payment acceptor assembly 60 (FIG. 2).

Re claim 25, the teachings of Ruppert et al. and Dumont have been discussed above.

Ruppert et al. and Dumont fail to specifically teach that there is a memory device.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to include memory to hold the stored information about the products, since it is understood that without a memory device the apparatus of Dumont would not function.

One would have been motivated to add memory in order to be able to process and handle data and to convert signals into price data, etc.

Re claim 26, the limitations have been taught above, via the teachings of Dumont.

Re claims 27-28, the teachings of Ruppert et al. as modified by Dumont have been discussed above.

Ruppert et al. as modified by Dumont fails to specifically teach or fairly suggest that the identifiers are optical characters.

Ruppert et al. teaches optical characters above, with respect to claim 5.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Dumont with those of Ruppert et al.

One would have been motivated to do this in order to have an apparatus that can read optical characters as well as RF tags, and is therefore more versatile.

Re claim 29 Ruppert et al. teaches first and second RF interfaces to communicate with each other through "Antenna 304 is coupled to an RF module (not shown) which is used to download data to a host computer coupled to a local area network with an RF link or RF receiver with a digital interface to the host computer. The downloaded data can be scanned data from barcodes or data read from magnetic stripe cards, PC Cards or smart cards inserted into the PCMCIA slot. The antenna 304 can also be used to upload data from a local area network or RF

transmitter coupled to a host computer" (col 17, lines 20-29). Here, the host computer is interpreted to include the base station.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont.

One would have been motivated to do this in order to have an alternative way to transmit data.

Re claim 30, Ruppert et al. teaches a price list where prices are determined, through "Other routines retrieve the current price list of the store to be shopped. This may be done by modem in some embodiments, or by physical connection to the store computer in other embodiments through the communication port (col 2, lines 11-16).

Though Ruppert teaches that the store computer holds the price list and therefore fails to specifically teach or fairly suggest that the checkout system holds the price list, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention to put the price list on the checkout system as a matter of design choice, since it appears that the system would function equally well with a price list on the computer or the checkout system, just as long as the price information is communicated. Further, the applicant has not disclosed that the price list on the checkout system solves any stated problem or is for any particular, functionally novel purpose, it is seen as a matter of design choice.

Re claim 31-32, an interface to a POS system and the payment accepting subsystem has been taught above.

Re claims 33-39, the teachings of Ruppert et al. as modified by Dumont have been discussed above. Further, Ruppert et al. teaches first and second RF interfaces to communicate

with each other through "Antenna 304 is coupled to an RF module (not shown) which is used to download data to a host computer coupled to a local area network with an RF link or RF receiver with a digital interface to the host computer. The downloaded data can be scanned data from barcodes or data read from magnetic stripe cards, PC Cards or smart cards inserted into the PCMCIA slot. The antenna 304 can also be used to upload data from a local area network or RF transmitter coupled to a host computer" (col 17, lines 20-29). Here, the host computer is interpreted to include the base station.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont.

One would have been motivated to do this in order to have an alternative way to transmit data.

Re claims 34-39, the limitations have been taught above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Matsumori (US 6,179,206), Humble (US 5,426,282) Kumar (US 5,489,773), Rauber et al. (US 6,182,053 B1), Pfeiffer et al. (US 5,198,644), and Kurihara et al. (JP 407234972A).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel Walsh** whose telephone number is **(703) 305-1001**. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 US.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[daniel.walsh@uspto.gov]**.

> All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

DIW
Patent Examiner
8/2/01

KARL D. FRECH
PRIMARY EXAMINER